

U.S.S.N. 10,811,621

Remarks

Thorough examination by the Examiner is noted and appreciated.

The claims have been further amended to overcome Examiners 112 rejections and to further clarify Applicants invention.

No new matter has been added.

Support for the amended and new claims is found in the previously and originally presented claims, the Figures (including Figures 1, 1A, and 2) and the Specification.

Claim Rejections under 35 USC 112

The claims have been amended to overcome Examiners Section 112, second paragraph rejection.

Claim Rejections under 35 USC 102/103

2. Claims 1-2, 4-6, and 21-22 stand rejected under 35 USC Section 102(b) as anticipated by, or in the alternative under 35 USC Section 103(a) as obvious over Meine et al. (US 6,689,223):

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Meine et al. discloses **a cleaning composition** having at least two continuous phases, one lower aqueous phase I and an upper aqueous phase II immiscible with the lower phase I, which can be temporarily converted into an emulsion by shaking (i.e., **the aqueous phases are stacked upon one another**).

Meine et al., in non-analogous art (is **not in the same field of endeavor such as electroplating of metal, but is in the cleaning field**), discloses:

"A method of cleaning hard surfaces by contact with an aqueous, liquid, multiphase, surfactant-containing cleaning composition having at least two continuous phases, one lower aqueous phase I and an upper aqueous phase II immiscible with the lower phase I, which can be temporarily converted into an emulsion by shaking and which cleaning composition contains no more than 50% by weight of nonionic surfactants, based on the total quantity of surfactants present." (see Abstract)

Examiner asserts that the disclosure of Meine et al. in connection with **a cleaning composition** that has **no more than 50% by weight of nonionic surfactants** based on the total quantity of surfactants **excluding a composition with a pH of 9 consisting of C12-C14 fatty alcohol + 1PO (propylene oxide)+1EO (ethylene oxide) ether or C10-C14 fatty alcohol +9EO butyl ether** (see col 2, lines 16-30), discloses the elements of Applicants claim:

"a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid, said non-ionic polymer

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selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;"

Examiner has not established that the modified fatty alcohols (including ethylene and propylene oxide) of Meine et al. is equivalent to any one of Applicants non-ionic polymers, **but even assuming arguendo, such is the case**, such a fact does not help Examiner in attempting to modify the **non-analogous** art of Meine to achieve Applicant invention while ignoring the structural elements of Applicants claims.

Examiner argues without support that "**the ether** disclosed by Meine **would have been an alkoxyated alcohol.**"

Examiner then apparently argues that she may shift the burden of proving that Meine et al. does not disclose an alkoxyated alcohol to Applicants since "the examiner cannot determine where or not the reference inherently possess properties which anticipate or render obvious the claimed invention but has a basis for shifting the burden of proof to Applicant" citing In re Fitzgerald 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP 2112-2112.02.

Examiner is misguided in attempting to shift any burden of proof to Applicants:

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ONCE A REFERENCE TEACHING PRODUCT
APPEARING TO BE SUBSTANTIALLY IDENTICAL
IS MADE THE BASIS OF A REJECTION,
AND THE EXAMINER PRESENTS
EVIDENCE OR REASONING TENDING TO
SHOW INHERENCY, THE BURDEN SHIFTS
TO THE APPLICANT TO SHOW AN UNOBVIOUS
DIFFERENCE

"[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. 102, on '*prima facie* obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

Examiner has not established any reasonable basis in fact to reasonably support that the modified fatty alcohols (including ethylene and propylene oxide) of Meine et al. **are substantially identical**, to any one of Applicants non-ionic polymers.

Examiner further argues in response that "the PO/EO and EO are alkoxylates and the fatty acids are alcohols. Thus Meine teaches alkoxylated alcohols". Thus, Examiner illogically argues that "A is disclosed and B is disclosed; therefore C is disclosed".

In addition, Meine et al. teach that the cleaning solution has **a lower continuous phase and an upper continuous phase (i.e.,**

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immiscible phases stacked upon one another) (col 3, lines 10-47);

Meine et al. nowhere disclose the following element of Applicants invention in including those elements in **bold type**:

"An electrolyte bath, comprising:

a metal electroplating electrolyte solution, said electrolyte solution contained in an electrolyte bath container; and

a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid, said non-ionic polymer selected from the group consisting of an alkoxyated alcohol, an alkoxyated amine, and an alkylphenol alkoxyate;

wherein said composition is disposed as a suspended layer within said electrolyte solution, said suspended layer spanning said electrolyte bath container, said suspended layer of sufficient dimension to form a wetting layer on a substrate as said substrate is passed through said suspended layer into said electrolyte solution, said electrolyte bath further comprising an anode to carry out said metal electroplating in said electrolyte solution on said substrate comprising said wetting layer."

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Examiner erroneously asserts that Meine et al. discloses as a suspended layer within said electrolyte solution.

Applicants respectfully request Examiner to explain how the **stacked immiscible layers** of Meine et al. disclose or suggest "wherein said composition is disposed as a suspended layer within said electrolyte solution".

Examiner erroneously asserts that Meine et al. discloses a suspended layer of sufficient dimension to form a wetting layer on a substrate and claims such is **inherent**. Since Meine et al. nowhere disclose or suggest Applicants suspended layer, neither is the dimension disclosed or inherent.

Applicants respectfully request Examiner provide some support or detail some sort of reasoning supporting Examiners claim of inherency.

See MPEP 2112

EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE TENDING TO SHOW INHERENCY

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence must make

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clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

Examiner apparently admits that Meine et al does not disclose "a metal electroplating electrolyte solution".

Examiner also apparently admits that Meine et al does not disclose Applicants "suspended layer".

Examiner also apparently admits that Meine et al does not disclose Applicants "anode in the electroplating bath".

Yet despite Meine et al. failing to disclose e several structural features of Applicants electrolyte bath, Examiner simply ignores Applicants claim language and assert that Since Applicants claims do not compositionally distinguish over prior art cleaning compositions, that Applicants structural claim language claiming an apparatus may be ignored. Applicants respectfully request Examiner to provide support in the case law or the MPEP for ignoring the plain meaning of Applicants apparatus claims and for ignoring the structural features of Applicants apparatus claims, and for treating Applicants claims

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as a composition claim, despite repeated clarifications from Applicants.

Applicants assert that Examiners attempt to limit Applicant claim to only a composition is nowhere supported in the MPEP or the case law.

Examiner argues that the **cleaning solution** of Meine "has the **capability to** flow and to take on the shape of a container" is also not supported by Examiner by citation to the MPEP as a factor that has any bearing on the patentability of Applicants claim. Applicants respectfully request Examiner to explain or provide support how something that has the capability to flow and take on the shape of a container anticipates or make obvious Applicants structure including **Applicants composition disposed as a suspended layer within a metal electroplating electrolyte solution.**

"The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353

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(Bd. Pat. App. & Inter. 1984).

IN addition, Examiner ignores the fact that by modifying the **cleaning solution** of Meine et al. to produce Applicants **metal electroplating solution** in an effort to reproduce Applicants invention would **change the principle of operation** of the **cleaning solution** of Meine et al. (**two immiscible stacked phases of a cleaning solution**) and make the cleaning solution of Meine et al. **unsuitable for its intended purpose** (cleaning including temporarily forming an emulsion of only the two immiscible phases).

**THE PROPOSED MODIFICATION CANNOT
RENDER THE PRIOR ART UNSATISFACTORY
FOR ITS INTENDED PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (Claimed device was a blood filter assembly for use during medical procedures wherein both the inlet and outlet for the blood were located at the bottom end of the filter assembly, and wherein a gas vent was present at the top of the filter assembly. The prior art reference taught a liquid strainer for removing dirt and water from gasoline and other light oils wherein the inlet and outlet were at the top of the device, and wherein a pet-cock (stopcock) was located at the bottom of the device for periodically removing the collected dirt and water. The reference further taught that the separation is assisted by gravity. The Board concluded the claims were *prima facie* obvious, reasoning that it would have been obvious to turn the reference device upside down. The court reversed, finding that if the prior art device was turned upside

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down it would be inoperable for its intended purpose because the gasoline to be filtered would be trapped at the top, the water and heavier oils sought to be separated would flow out of the outlet instead of the purified gasoline, and the screen would become clogged.).

**THE PROPOSED MODIFICATION CANNOT
CHANGE THE PRINCIPLE OF OPERATION
OF A REFERENCE**

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Examiner nowhere cites any support for the notion that the structural features of Applicants apparatus claims can be ignored, as Examiner attempts to do by ignoring the structural elements of Applicant invention and insisting on treating applicants claims as only claiming a composition. Applicants respectfully assert that they are entitled to have all the features of their invention considered.

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"Finally, when evaluating the scope of a claim, every limitation in the claim must be considered. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered." See, e.g., *Diamond v. Diehr*, 450 U.S. at 188-189, 209 USPQ at 9.

"A claim is anticipated only **if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.**" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The **identical invention must be shown in as complete detail as is contained in the ... claim.**" *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

"**First**, there must be some **suggestion or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. **Second**, there must be a **reasonable expectation of success**. **Finally**, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's

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disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim Rejections under 35 USC 103

3. Claim 7 stands rejected under 35 USC 103(a) as being unpatentable of Meine et al., above.

Applicants reiterate the comments made concerning the non-analogous art of Meine et al., above in disclosing a cleaning composition having at least two continuous phases, one lower aqueous phase I and an upper aqueous phase II immiscible with the lower phase I, which can be temporarily converted into an emulsion by shaking.

Even assuming *arguendo* a proper motivation for modifying the cleaning composition of Meine et al., such modification does not produce Applicants invention.

Examiners argument that varying the various concentrations of the cleaning composition of Meine, in forming one lower aqueous phase I and an upper aqueous phase II immiscible with the lower phase I, in an effort to achieve Applicants invention are result effective variables is likewise misplaced since Meine **does**

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not disclose or suggest the structural elements of Applicants invention, including Applicants suspended layer "wherein said composition is disposed as a suspended layer within said electrolyte solution, said suspended layer spanning said electrolyte bath container"

"A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

With respect to claim 7, Examiner is further mistaken in arguing that 8 % by weight of citric acid disclose by Meine at col 2, line 28 is equivalent to Applicants 10 wt%. Examiner has provided no support that one of ordinary skill in the art would consider 8 wt % to be about 10 wt % **in the relevant art of electroplating solutions or that one skilled in the art would expect electroplating solutions differing only by the amount of the citric acid solution to have about the same properties.** Moreover, Applicants do not claim a range, but a specific amount.

"First, there must be some suggestion or motivation, either

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in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. **Second**, there must be a **reasonable expectation of success**. **Finally**, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success **must both be found in the prior art, and not based on applicant's disclosure.**" *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

4. Claim 13 stands rejected under 35 USC 103(a) as being unpatentable over *Meine et al.*, above.

Applicants reiterate the comments made concerning the non-analogous art of *Meine et al.*, above in disclosing a cleaning composition having at least two continuous phases, one lower aqueous phase I and an upper aqueous phase II immiscible with the lower phase I, which can be temporarily converted into an emulsion by shaking.

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Conclusion

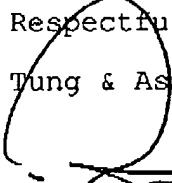
The cited non-analogous art, fails to produce or suggest Applicants invention, and therefore fails to make out a *prima facie* case of anticipation or obviousness.

Applicants have further amended their claims to clearly define over the prior art.

Applicants respectfully request favorable consideration of their claims and submit that Applicants Claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

In the event that the present invention as claimed is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicants= representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,
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